

Kamaljit Singh\*, Assistant Prof. Simmi Vashishtha, PhD\*\*

## **LIQUIDITY INFUSION UNDER ATMANIRBHAR BHARAT SCHEME: A STRATEGY TO REVIVE INDIAN POWER DISCOMS**

As a first tranche measure to fight the economic disruption of the lock-down and part of the strategy to revive India's battered economy, a liquidity infusion for the power distribution companies was announced under the Atmanirbhar Bharat (self-reliant India) scheme. The present study aims to discuss the overdue, outstanding, and disputed amounts of the sixty-one power discoms from April 2020 to September 2020. The author pointed out that the amounts due by the discoms to generator companies have risen to Rs. 94,000 crores while the Indian government will provide only a total liquidity infusion of Rs. 90,000 crores for the needy electricity distribution companies. The payments owed by electricity utilities have risen to Rs. 1.24 lakh crore, which is more than 20 percent higher than for the same period last year. Subsequently, the debts of the discoms to generating companies are growing, making discoms unsustainable as unpaid power producers threaten to stop electricity supply to states.

JEL: H74; M20; O21

*Keywords: power distribution utilities; liquidity infusion; UDAY scheme; Atmanirbhar Bharat*

India will provide a cumulative liquidity injection of Rs. 90,000 Crores (on 13/05/2020, one crore was equal to \$ 132,707) for indebted power distribution companies (discoms) as part of India's strategy to rekindling India's battered economy. Being implemented as a first tranche measure to tackle the economic disruption of the coronavirus lock-down as announced by Union Finance Minister Nirmala Sitharaman on May 13, 2020, this has exacerbated already precarious power debt financing (Singh, 2020; Singh and Vashishtha, 2020). These Rs. 90000 crores will help cover transparent unpaid dues claimed by state-owned financial institutions. The liquidity injection for the discoms will run like this. The Covid-19 outbreak and then the lock-down in March, April, and May enormously reduced demand for electricity (Senthilkumar et al., 2020). The decline in power usage has been so steep that power demand is projected to decrease by 1 percent for the entire year 2020-21, the first time in nearly 36 years.

The State-owned Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) will raise approximately Rs. 90,000 crores from the market to provide further liquidity to the discoms (Rout et al., 2021). The state governments will be acting as a guarantor. This one-time cash injection would be used to pay for electricity generation firms in the central public sector, transmission utilities, independent

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\* University School of Management Kurukshetra University, Kurukshetra, Haryana, India, kamaljitsehjanusm17@kuk.ac.in

\*\* University School of Management Kurukshetra University, Kurukshetra, Haryana, India, simmivashishtha@kuk.ac.in

power producers, and renewable energy generators (Das et al., 2020). The state-owned PFC and REC hold many assets, which are the primary institutions that provide loans to the power industry. This intention is to clear the payment backlog on concessional loans supported by the respective states' governments. Since energy is one of the economy's main requirements, consuming vast amounts of energy certainly causes the economy to expand (Pargal and Ghosh, 2014; Sethi, 2014). With at least ten states losing about one-third in distribution loss of power distributed to their customers, their losses impacted not only power producers but have also increased the stress on the banking industry. Two tranches of loans will be disbursed. They will be linked to regulatory changes, such as increasing the usage of digital payment systems, including prepaid meters and loss reduction plans.

The NDA government has submitted a series of power sector reforms, including implementing the direct benefit transfer (DBT) scheme in the power sector to help recognize deserving beneficiaries and promote retail competition (Singh and Vashishtha, 2019). Following the Draught Electricity Act (amending) Bill 2020 to the Electricity Act, 2003, the government has pitched its costs to reflect tariff and formed the Electricity Contract Compliance Authority (ECCA) to enforce power purchase agreements (PPA) (Pandey and Ghodke, 2019). In support of this order, another initiative is being made for relaxing the borrowing limits placed under Ujwal Discoms Assurance Yojana (UDAY) as a one-time measure, intended to help turn around the power distribution companies in the state (Singh and Vashishtha, 2019). For conventional and renewable power generation and transmission firms, working capital borrowings from banks and financial institutions that can account for up to 25 percent of last year's profits would be expected to pay their dues.

The burden of energy demand transferred to households during the lock-down, resulting in declining realizations. After many factories shut down, commercial and industrial energy was hit by a drop in high demand for electricity. Electricity connections account for approximately a quarter of India's annual energy demand and contribute 21.4 percent to India's annual AT&C losses. Furthermore, in most states, the difference from Rs 2.13 per unit in Andhra Pradesh to Rs. 0.09 in Chhattisgarh remained relevant between the electricity purchased (average cost supply) and supplied (average revenue realized).

Therefore, this study aims to discuss the present status of overdue, outstanding, and disputed amounts and liquidity infusion to revive power discoms. The study has been organized as follows: the second and third sections discuss the methodology, results, and discussion, respectively. The last section concludes, and based on results, some enumerable policy implications have been proposed.

### **Methodology**

The study's data has been taken from the web portal of the Ministry of Power, India ([www.praapti.in](http://www.praapti.in)) and Ministry of Finance, India ([www.finmin.nic.in](http://www.finmin.nic.in)). Looking at the data's complexity, India's power discoms are divided into five regions, i.e., North Region, South Region, East Region, West Region, and North-East Region. The study includes the sixty-one public limited discoms except for private distributors.

The percentage change is calculated to find the disputed amount from April 2020 to September 2020. The Formula of percentage change is:

$$PC = \left( \frac{V_{final}}{V_{begin}} \right)^{1/t} - 1$$

Where: *PC* – Percentage Change, *V<sub>final</sub>* – Final Value, *V<sub>begin</sub>* – Beginning Value, *t* – Time in months.

### Results and Discussion

Table 1 highlights the status of overdue, outstanding, and disputed amounts with various enterprises. With 46 invoices counted, the Central Public Sector Enterprises (CPSEs) has the Rs. 44,736.02 Crore overdue amount, Rs. 8,927.63 Crore outstanding amount, and Rs. 1,495.91 Crore disputed amount. The state generators have 877 invoices counted and the Rs. 27,360.14 Crore overdue amount, and Rs. 10,391.16 Crore outstanding amount. The Independent Power Producer (IPP) has the highest Rs. 13,729.83 Crore disputed amount.

Table 1

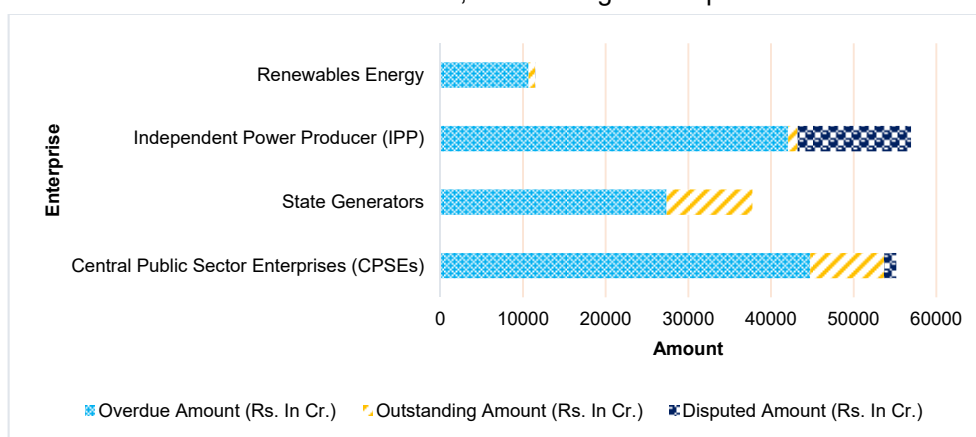
Status of the overdue, outstanding and disputed amounts

Enterprises	Invoices Counted	Overdue Amount (Rs. In Cr.)	Outstanding Amount (Rs. In Cr.)	Disputed Amount (Rs. In Cr.)
Central Public Sector Enterprises (CPSEs)	46	44736.02	8927.63	1495.91
State Generators	877	27360.14	10391.16	0.00
Independent Power Producer (IPP)	198	42070.15	1142.91	13729.83
Renewables Energy	460	10678.38	766.80	12.37

Source. <https://praapti.in>

Figure 1

Status of the overdue, outstanding and disputed amount



As shown in Figure 1, in comparison, the Renewables Energy generators have the minimum overdue, outstanding and disputed amounts in the table. The one reason for these increasing amounts can be the liberal debt policy of the generators. The lower revenue collection efficiency of power discoms is also responsible for the same.

#### *Outstanding Amounts of North Region Discoms to Generators*

The outstanding amounts of eighteen North Region discoms are highlighted in Table 2. The north region of India covers Chandigarh, Delhi, Jammu & Kashmir, Haryana, Himachal Pradesh, Punjab, Rajasthan, Uttar Pradesh, and Uttarakhand states.

*Table 2*

#### Outstanding Amounts of North Region Discoms

Discom	Outstanding Amounts (Excluding Disputed) at end (Rs. In Cr.)						% Change
	Apr-20	May-20	June 20	Jul-20	Aug-20	Sep-20	
CHGED	237.06	226.47	251.73	177.26	177.3	215.78	-0.09
BRPL	573.55	144.08	231.33	136.62	138.2	118.53	-0.79
BYPL	922.28	1,011.36	956.75	864.79	964.57	1,018.67	0.1
DTPDDL	-20.04	15.65	-14.22	26.65	-6.41	-7.08	-0.65
NDMC	-2.28	-2.28	-2.28	-2.28	-2.28	-2.28	0
HP	-4.98	15.39	15.39	-4.98	-4.98	-4.98	0
HPSEB	62.2	67.48	42.7	34.6	34.6	34.94	-0.44
HPPC	2,770.55	2,854.58	3,571.63	3,593.27	3,578.05	3,525.71	0.27
J&K PDD	5,333.74	6,317.16	6,558.81	6,926.54	7,264.34	7,545.33	0.41
J&KPTC	95.52	109.95	123.86	137.29	157.93	170.94	0.79
PSPCL	339.36	580.52	507.18	273.92	283.08	329.33	-0.03
AVVNL	9,178.30	9,592.92	9,679.46	9,680.79	9,837.57	9,888.70	0.08
JDVVNL	12,589.3	12,736.3	12,962.3	12,847.1	13,087.6	13,236.8	0.05
JVVNL	12,384.8	12,982.5	13,276.9	13,258.6	13,579.4	13,854.3	0.12
RDPPC	167.01	167.11	179.92	179.4	190.46	195.64	0.17
RRVPNL	219.34	291.93	321.4	374.54	459.61	459.61	1.1
UPPCL	10,362.4	13,133.2	13,681	12,239.7	11,308.7	12,233.7	0.18
UtPCL	59.29	292.88	230.13	281.59	108.72	-29.1	-1.49
Total	55,267.97	60,560.11	62,599.96	61,054.38	61,168.67	62,815.82	0.14

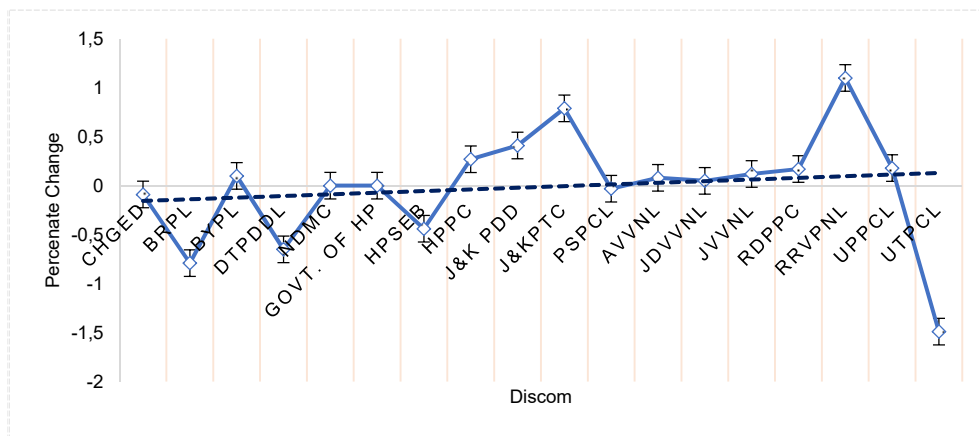
*Source.* Author's Calculation.

The percentage change in the outstanding amounts of North Region Discoms is shown in Figure 2. The outstanding amount of Uttarakhand Power Corporation Limited (UtPCL) has decreased over the study period by a negative growth rate of 1.49 percentage. The outstanding amount of Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL) has increased by a 1.1 percent growth rate. The outstanding amounts of state discoms viz. Chandigarh Electricity Department (CHGED), BSES Rajdhani Power Limited (BRPL), Delhi Tata Power Distribution Limited (DTPDDL),

Himachal Pradesh State Electricity Board Limited (HPSEB), Punjab State Power Corporation Limited (PSPCL), Uttarakhand Power Corporation Limited (UtPCL) have decreased over the study period by a negative growth rate. The outstanding amounts of state discoms viz. BSES Yamuna Power Limited (BYPL), Haryana Power Purchase Centre (HPPC), Jammu and Kashmir Power Distribution Department (J&K PDD), Jammu and Kashmir state power trading company limited (J&KPTC), Punjab State Power Corporation Limited (PSPCL), Ajmer Vidyut Vitran Nigam Ltd. (AVVNL), Jodhpur Vidyut Vitran Nigam Ltd (JDVVNL), Jaipur Vidyut Vitran Nigam Ltd. (JVVNL), Rajasthan Discoms Power Procurement Centre (RDPPC), Rajasthan Raja Vidyut Prasaran Nigam Limited (RRVPNL), and Uttar Pradesh Power Corporation Ltd (UPPCL) have increased over the period. During the lock-down period, there is a drastic change in power demand. The power demand by industries, factories, and commercial units decreased. Therefore, in the North region, the outstanding amount of most of the discoms has an increasing trend.

Figure 2

Percentage change in the outstanding amounts of North Region Discoms



*Outstanding Amount of South Region Discoms to Generators*

Table 3 illustrates the outstanding amounts of twelve South region discoms to power generators. The South region includes Andhra Pradesh, Kerala, Karnataka, Tamil Nadu, Telangana, Lakshadweep, and Puducherry. The percentage change in the outstanding amounts of South Region Discoms is shown in Figure 3. Tamil Nadu Electricity Board (TNEB) has the highest 1.23 percent growth rate of the outstanding amount in the concerned region. In comparison, Andhra Pradesh Power Purchase Coordination Committee (APPCC) has the highest 0.33 percent negative outstanding amount growth rate. The Kerala State Electricity Board (KSEB) and Telangana State Southern Power Distribution Company (TSSPDCL) have a negative growth rate in

general. In contrast, Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL), Bangalore Electricity Supply Company Ltd. (BESCOM, Chamundeshwari Electricity Supply Corporation Limited (ChESCOM), Gulbarga Electricity Supply Company Ltd. (GESCOM), Hubli Electricity Supply Company Ltd. (HESCOM), Mangalore Electricity Supply Company Ltd. (MESCOM), Puducherry Power Department (PUPD), and Tamil Nadu Generation & Distribution Corporation Limited (TANGEDCO) show an increasing trend of their outstanding amounts.

Table 3

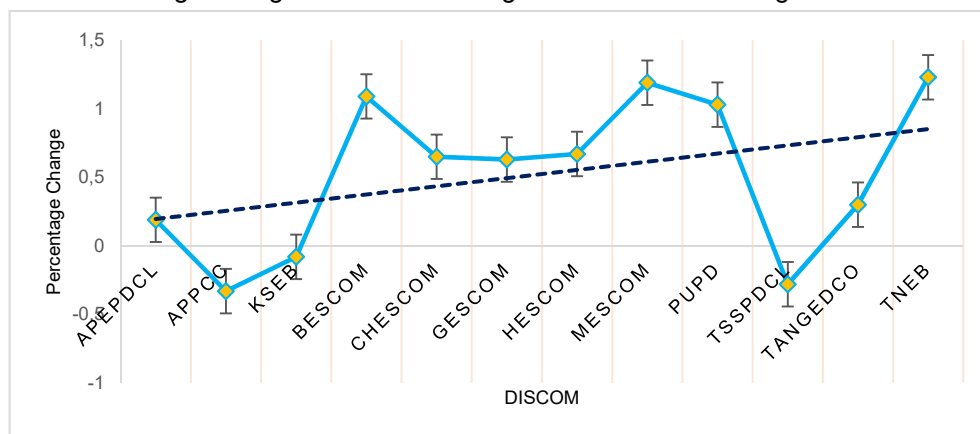
Outstanding Amounts of South Region Discoms

Discom	Outstanding Amounts (Excluding Disputed) at end (Rs. In Cr.)						% Change
	Apr-20	May-20	June 20	Jul-20	Aug-20	Sep-20	
APEPDCL	129.95	169.83	205.3	116.41	136.99	154.31	0.19
APPC	2,423.84	2,993.88	2,637.58	2,192.40	2,656.45	1,631.23	-0.33
KSEB	567.82	372.7	347.99	336.76	418	523.54	-0.08
BESCOM	1,062.57	1,577.14	1,913.31	2,096.82	2,362.79	2,221.30	1.09
ChESCOM	352.68	446.71	473.78	521.65	550.72	581.17	0.65
GESCOM	1,091.74	1,228.41	1,316.92	1,842.11	1,812.23	1,784.29	0.63
HESCOM	2,191.27	2,398.85	2,470.22	3,664.26	3,828.83	3,662.28	0.67
MESCOM	21.8	35.91	31.49	57.04	57.86	47.73	1.19
PUPD	318.08	392.06	452.55	542.09	633.92	645.55	1.03
TSSPDCL	1,470.03	1,598.51	1,661.25	945.14	999.36	1,055.12	-0.28
TANGEDCO	16,757.1	17,935.9	19,078.9	19,896.1	20,688.7	21,740.6	0.3
TNEB	44.53	45.09	45.35	46.16	97.45	99.19	1.23
Total	93,280.5	102,135.4	107,076.9	107,454.5	110,788.8	112,551	0.21

Source. Author's Calculation.

Figure 3

Percentage change in the outstanding amounts of South Region Discoms



### Outstanding Amounts of East Region Discoms to Generators

The outstanding amounts of eight East Region discoms are highlighted in Table 4. The East region of India includes the Andaman and Nicobar, Bihar, Jharkhand, Odisha, Sikkim, and West Bengal states. The percentage change in the outstanding amounts of East Region Discoms is shown in Figure 4. There is an upward trend of discoms outstanding amount in East region except Bihar State Power Holding Company Limited (BSPHCL). CESC LTD (CESC) has the highest 5.69 percent growth rate of the outstanding amount followed by North Bihar Power Distribution Company Ltd. (NBPDCCL), South Bihar Power Distribution Company Ltd. (SBPDCL), Grid Corporation of Odisha (GRIDCO), Damodar Valley Corporation (DVC), Jharkhand Bijli Vitran Nigam Limited (JBVNL), and Electricity Department, Govt. of Andaman and Nicobar Islands (AIED). The discoms of the East region are in critical condition, as they fail to pay in a timely way to power generators.

Table 4

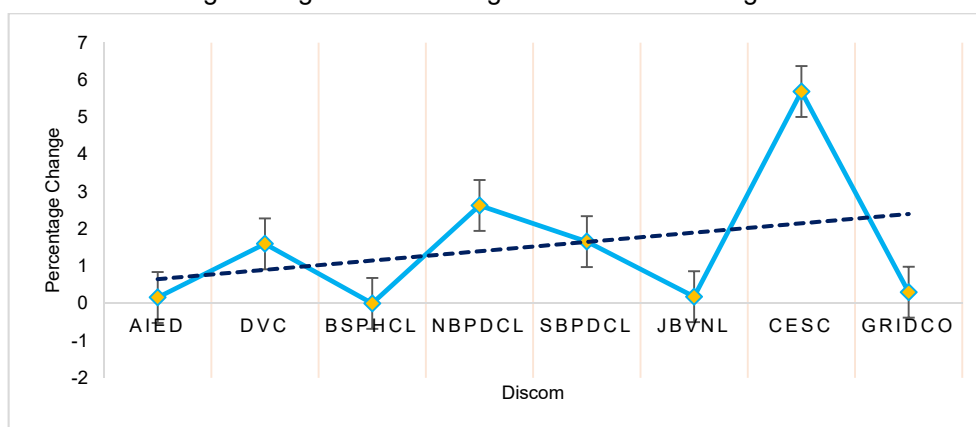
Outstanding Amounts of East Region Discoms

Discom	Outstanding Amounts (Excluding Disputed) at end (Rs. In Cr.)						% Change
	Apr-20	May-20	June 20	Jul-20	Aug-20	Sep-20	
AIED	12.26	13.06	13.52	13.52	13.86	14.23	0.16
DVC	0	0	0	2.65	4.77	6.9	1.6
BSPHCL	692.74	692.74	692.74	692.74	692.74	692.74	0
NBPDCCL	91.19	240.01	258.09	289.2	356.52	330.7	2.63
SBPDCL	178.3	425.16	439.1	555.45	704.27	474.17	1.66
JBVNL	4,185.86	4,449.83	4,690.22	4,861.03	4,731.96	4,936.74	0.18
CESC	90.72	126.78	174.29	549.98	576.52	606.91	5.69
GRIDCO	1,648.66	1,874.27	2,006.37	2,085.88	2,091.93	2,146.29	0.3
Total	34,798.98	40,264.18	43,132.89	45,598.41	47,035.37	46,884.19	0.35

Source. Author's Calculation.

Figure 4

Percentage change in outstanding amounts of East Region Discoms



*Outstanding Amounts of West Region Discoms to Generators*

The outstanding amounts of sixteen West Region discoms are highlighted in Table 5. The West region of India includes the Chhattisgarh, Gujrat, Maharashtra, Madhya Pradesh, Goa, Daman & Diu, and D. & N. Haveli states.

Table 5

Outstanding Amounts of West Region Discoms

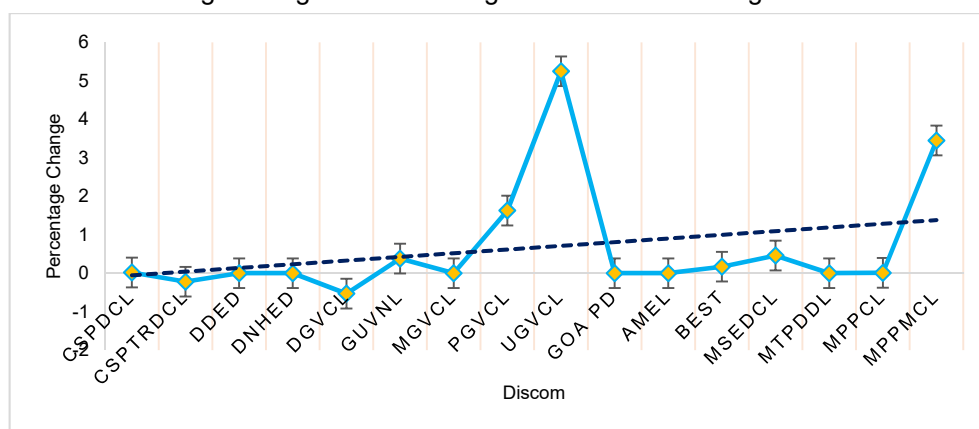
Discom	Outstanding Amounts (Excluding Disputed) at end (Rs. In Cr.)						% Change
	Apr-20	May-20	June 20	Jul-20	Aug-20	Sep-20	
CSPDCL	44.13	44.81	168.07	126.85	85.99	45.13	0.02
CSPTRDCL	28.74	22.53	22.53	22.31	22.47	22.47	-0.22
DDED	-3.66	-3.66	-3.66	-3.66	-3.66	-3.66	0
DNHED	821.37	821.37	843.76	858.97	840.17	821.37	0
DGVCL	0	0	0	0	1.02	0.48	-0.53
GUVNL	324.85	324.85	327.6	344.04	447.25	449.62	0.38
MGVCL	0	0	0	0	0.12	0.12	0
PGVCL	0.08	0.08	0.08	0.08	0.1	0.21	1.63
UGVCL	0.24	0.2	0.62	0.75	2.48	1.5	5.25
Goa PD	0	0	-0.43	-0.43	-0.43	-0.43	0
AMEL	18.13	18.13	18.13	18.13	18.13	18.13	0
BEST	28.78	28.78	31.49	31.47	33.61	33.61	0.17
MSEDCL	5,075.90	7,106.46	7,461.25	7,758.35	7,418.72	7,418.05	0.46
MTPDDL	6.48	6.48	6.48	6.48	6.48	6.48	0
MPPCL	706.53	726.13	726.57	689.76	711.74	711.74	0.01
MPPMCL	504.33	567.46	994.03	1,250.66	1,487.79	2,244.69	3.45
Total	27,659.72	31,665.2	34,354.34	37,620.24	38,447.05	39,460.75	0.43

Source. Author's Calculation.

The percentage change in the outstanding amounts of West Region Discoms is shown in Figure 5.

Figure 5

Percentage change in outstanding amounts of West Region Discoms





There is an upward trend in the discoms outstanding amounts in the West region except Dakshin Gujarat Vij Company Ltd (DGVCL) and Chhattisgarh State Power Trading Company Limited (CSPtrdcl). Uttar Gujarat Vij Company Ltd (UGVCL) has the highest 5.25 percent growth rate of outstanding amounts, followed by Madhya Pradesh Power Generation Company Limited (MPPMCL), Paschim Gujarat Vij Company Ltd (PGVCL), Maharashtra State Electricity Distribution Co. Ltd (MSEDCL), Gujarat Urja Vikas Nigam Limited (GUVNL), Best Undertaking (BEST), and Chhattisgarh State Power Distribution Company Limited (CSPDCL). The discoms of West region are in a critical condition as they fail in paying in timely way to power generators and lower revenue collection efficiency.

*Outstanding Amounts of North-East Region Discoms to Generators*

The outstanding amounts of seven North-East Region discoms are highlighted in Table 6. India's North-East region covers the Arunachal, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura states. The percentage change in the outstanding amount of North-East Region Discoms is shown in Figure 6.

Table 6

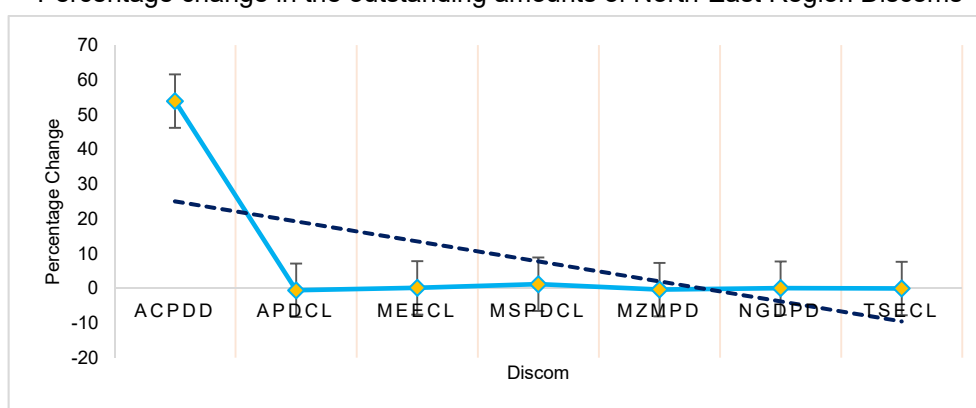
Outstanding Amounts of North-East Region Discoms

Discom	Outstanding Amount (Excluding Disputed) at end (Rs. In Cr.)						% Change
	Apr-20	May-20	June 20	Jul-20	Aug-20	Sep-20	
ACPDD	0.57	22.91	25.97	28.89	12.21	31.28	53.88
APDCL	237.34	210.32	350.39	287.47	94.49	91.48	-0.61
MeECL	764.97	776.2	788.79	802.2	823.23	834.21	0.09
MSPDCL	43.85	55.68	66.84	72.13	88.91	93.29	1.13
MZMPD	6.98	-0.15	-0.15	-0.15	-0.15	4.13	-0.41
NGDPD	-1	-1	-1	-1	-1	-1	0
TSECL	126.08	151.51	116.37	118.16	119.9	114.99	-0.09
Total	93,419.4	102,322.9	107,232.8	107,615.1	110,934.7	112,711.4	0.21

Source. Author's Calculation.

Figure 6

Percentage change in the outstanding amounts of North-East Region Discoms



The outstanding amount of Assam Power Distribution Company Limited (APDCL), Mizoram Power Department (MZMPD), and Tripura State Electricity Corporation Limited (TSECL) has decreased over the study period by a negative growth rate of 0.61, 0.41, and 0.09 percentage. In comparison, the outstanding amount of Arunachal Power Distribution Department (ACPDD) has increased by the highest 53.88 percentage growth rate. The outstanding amounts of state discoms viz. Meghalaya Power Distribution Corporation Limited (MeECL), Manipur State Power Distribution Company Ltd. (MSPDCL), and Nagaland Power Department (NGDPD) have also increased over the period.

### Conclusion

The Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) were to infuse Rs 90,000 crore liquidity into the discounts in two equal instalments. The extent of soft loans available depends on the amount a discom owes to the government-owned power companies and their defaulted receivables. This allows states to stay within budget deficits throughout their planning periods, including their default risk. The states mostly worry that this would hinder their ability to raise money for other needs. The debts of discoms to generating companies have skyrocketed to Rs 94,000 crore, and discoms cannot generate power without the latter's permission. According to an ICRA (Investment Information and Credit Rating Agency of India Limited) rating agency, Moody's team report, in the current year alone, projected losses at state-run electricity distribution utilities will rise by two-thirds to Rs 50,000 crore in the financial year 2021 by the addition of Rs. 20,000 crore in book-entry level losses.

For some time, discoms already have been struggling to recover under low-demand conditions, which has affected their income and the amounts due to generators for service power. Thus, outstanding payments to electricity generators have risen to Rs. 1,24,916 crore, more than 20 percent higher than the debt discoms at the same time last year. What has been added to the discoms' problems is that the lock-down has also resulted in a decline in demand by high-tariff paying industrial and commercial customers (which pay nearly double the household rate) and a possible pause in raising cash from other market segments. As a policy implication, the Government and Reserve Bank of India (RBI) should allow discoms to issue bond paying 2 percent over repo rate redeemable in 12 quarterly instalments solely to clear old debts to power generation companies. The State Electricity Regulatory Commissions (SERCs) should factor these on the discom cashflow while determining tariffs.

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